

REMARKS

Claims 1-62 were pending in the application prior to this Amendment. Claims 1-27 and 31-61 have been withdrawn from consideration pursuant to a restriction requirement. Claims 28 and 62 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kawazoe et al (USP 5,781,317) in view of Hopwood (USP 4,915,464). Claim 29 stands rejected under 35 U.S.C. § 103 as being unpatentable over Molteni (USP 5,473,447). Claim 30 stands rejected under 35 U.S.C. § 103 as being unpatentable over Brumm (USP 3,758,186). The rejections of claims 28, 29 and 62 are respectfully traversed. Claims 1-27 and 30-60 are cancelled by this Amendment. New claim 63 is added by this Amendment.

Applicant thanks the Examiner for withdrawing the rejection of claims 28-30 under 35 U.S.C. § 112, second paragraph.

Discussion of the art rejections:

The rejection of claims 28 and 62

In response to the previous rejection of claim 28 as being unpatentable over Kawazoe et al, claim 28 was amended to include a step of “filtering *higher order* diffracted light from reflecting back to said photosensitive material.” In response to the Amendment, the Examiner has applied the new Hopwood reference. The Examiner reasons that Kawazoe et al use black paint 2263 (Fig. 39) to absorb unwanted orders of light to prevent them from reflecting back to the recording medium, and Hopwood teaches use of a dichroic filter interposed between the hologram and the photosensitive holographic material to eliminate unwanted orders of diffracted light. From this, the Examiner concludes that it would have been obvious “to use the appropriate filtering means to prevent the unwanted orders of diffracted light to enter the photosensitive holographic material for the benefit of eliminating the unwanted noise holograms being recorded.”

Applicant respectfully submits that the invention of claim 28 is not rendered obvious by Kawazoe et al and Hopwood, taken either alone or in combination, at least because these references commonly fail to teach or suggest a method which includes filtering higher order diffracted light from reflecting back to a photosensitive material.

In more detail, claim 28 specifies filtering *higher order* diffracted light from reflecting back to a photosensitive material, while each of the references discloses preventing *zero order* light from reflecting back to recording photosensitive material. Neither of the references teaches or suggests filtering higher order diffracted light from reflecting back to the photosensitive material. The Examiner has simply concluded that since the references disclose preventing zero order diffracted light from reflecting back to the photosensitive material, filtering *any* light from reflecting back to the photosensitive material would have been obvious. However, zero order diffracted light is not the same thing as higher order reflected light, and none of the references teaches or suggests filtering higher order diffracted light. At least for this reason, Applicant submits that claim 28 distinguishes over the applied references. Further, Applicant believes that claim 62 is patentable at least by virtue of its dependence from claim 28.

The rejection of claim 29

Regarding the rejection of claim 29, claim 29 was amended in response to the previous Office Action to include a feature of

replacing said first transmission type hologram with a second transmission type hologram having a second pattern of interference fringes and striking the reconstructing light on a side of said second transmission type hologram that is not opposite to said photosensitive material, so that second interference fringes produced by interference of light diffracted from said second transmission type hologram and the reference light incident on said photosensitive material are recorded in said photosensitive material.

In the present Office Action, the Examiner says that Molteni teaches a master transmission hologram (H₁) comprising a plurality of holograms having different fringe patterns

that correspond to a plurality of two dimensional images being viewed through a plurality of slits, and that the plurality of holograms representing the two dimensional images are reconstructed simultaneously when the hologram (H_1) is illuminated by the reconstruction beam (36) to record the plurality of images on the holographic plate. The Examiner concludes that although this reference does not teach explicitly to make the plurality of fringe patterns or the holograms contained in hologram (H_1) into separate holograms and record it one by one to the holographic plate (H_2), however to record them simultaneously with all the hologram fringes being placed on one single hologram or to record them one by one are obvious variations involving routine skill in the art.

Applicant respectfully submits that the Molteni patent does not teach or suggest the claimed combination including the feature of replacing the holograms as specified in claim 29. More specifically, Molteni describes, at column 13, line 61 to column 14, line 25, a process of producing stereo holograms as follows:

As shown in FIG. 6, the H_1 hologram of FIG. 5 is reverse conjugate illuminated using collimated, coherent illumination beam 36. This illumination simultaneously reproduces all of the two-dimensional perspective views at holographic recording plate 37. The illumination also simultaneously reproduces slit aperture 29 at all the locations at which the slit aperture was located during the recording of the H_1 hologram. These reproduced slit apertures constitute the slits 17 which produce the stereogram effect. The reproduced slit apertures are identified by the reference numeral 17 in FIG. 6.

So as to create a holographic recording of the two-dimensional perspective views and the slits 17, holographic recording plate 37 is illuminated with coherent reference beam 38. As in FIG. 5, beams 36 and 38 are typically derived from the same laser source using, for example, suitably placed beam splitters (not shown).

Preferably, reference beam 38 is selected so as to have spatial characteristics similar to those of the illumination source which will ultimately be used with the finished hologram. Thus, in FIG. 6, a lens system shown schematically at 39 is used to produce

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a reference beam which converges to point 40. Point 40 and its spacing from plate 37 correspond to the location of light source 25 and its spacing from holographic stereogram 13 in FIG. 2.

Once exposed, holographic plate 37 is developed using conventional techniques to form the H₂ hologram. As with plate 28 of FIG. 5, plate 37 of FIG. 6 can be composed of any suitable material for recording holograms. As discussed above, the H₂ hologram, or a copy thereof, constitutes the holographic stereogram 13 used in the practice of the invention.

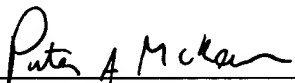
As can be seen from this description, the process is complicated and requires much precision. The process recited in claim 29, however, is simple and does not require the precision necessary to perform the process described by Molteni. That is, the process specified in claim 29, is simple by virtue of its step of replacing the first transmission type hologram with a second transmission type hologram. The Examiner has not produced any reference which teaches or suggests that one of ordinary skill in the art would know, in conjunction with the other elements of the claim, to replace a first transmission type hologram with a second transmission type hologram, and therefore Applicant respectfully submits that the Examiner has not established a *prima facie* case of obviousness. Applicant therefore respectfully requests that the rejection of claim 29 be withdrawn.

Applicant respectfully requests the Examiner to withdraw all the rejections, and to find the application now to be in condition for allowance with claims 28-29 and 62-63. If the Examiner feels that the disposition of the application could be expedited by speaking with Applicant's representative, the Examiner is respectfully invited to **call the undersigned attorney** at the number shown below.

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Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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